

In the Claims

The following is a listing of the pending claims:

1. (Currently Amended) A multiple resolution sensing apparatus comprising;
a plurality of first photosensor elements coupled together to form a first linear array and having a first length and a first resolution;
a plurality of second photosensor elements coupled together to form a second linear array and having a second length and a second resolution;
a coupler having a first amplifier and an output, said coupler coupled to said first linear array and to said second linear array; and
a controller coupled to said coupler and providing a control signal to said coupler such that said output is coupled to said first linear array when said first resolution is employed and such that said output is coupled to said second linear array, instead of said first linear array, when said second resolution is employed;
the first amplifier being operative to amplify signals provided by the first linear array when the first resolution is being employed and to amplify signals provided by the second linear array when the second resolution is being employed.
2. (Currently Amended) The apparatus of claim 1, wherein said first linear array and said second linear array are ~~placed~~ located on a single substrate.
3. (Currently Amended) The apparatus of claim 1, wherein said first linear array, said second linear array and said coupler are ~~placed~~ located on a single substrate.

4. (Currently Amended) The apparatus of claim [[2]] 1, wherein said coupler further includes ~~at least one~~ a second amplifier, and wherein said first linear array, said second linear array and said coupler ~~with said at least one amplifier are placed~~ are located on a single substrate.

5. (Currently Amended) The apparatus of claim [[2]] 1, wherein said first length and said second length are substantially the same and at least equal to one dimension of an image to be sensed.

6. (Currently Amended) The apparatus of claim [[1]] 4, wherein said coupler further comprises a switch controlled by said controller such that said switch couples said output to said first linear array when said first resolution is employed and such that said switch couples said output to said second linear array when said second resolution is employed.

7. (Currently Amended) The apparatus of claim 6, wherein said ~~coupler further comprises:~~ a first amplifier is coupled between said switch and said first linear array such that charges detected by said plurality of first photosensor elements are amplified into a first electrical signal; and

[[a]] said second amplifier is coupled between said switch and said second linear array such that charges detected by said plurality of second photosensor elements are amplified into a second electrical signal.

8. (Currently Amended) The apparatus of claim 1, wherein said first linear array and said second linear array detect only a first color of light.

9. (Original) The apparatus of claim 1, further comprising:

a plurality of third photosensor elements coupled together to form a third linear array and having a third length and said first resolution;

a plurality of fourth photosensor elements coupled together to form a fourth linear array and having a fourth length and said second resolution;

a second coupler having an second output, said second coupler coupled to said third linear array and to said fourth linear array;

a plurality of fifth photosensor elements coupled together to form a fifth linear array and having a fifth length and said first resolution;

a plurality of sixth photosensor elements coupled together to form a sixth linear array and having a sixth length and said second resolution;

a third coupler having a third output, said coupler coupled to said first linear array and to said second linear array,

wherein said controller is coupled to said second coupler and said third coupler, and wherein said controller provides said control signal to said second coupler so that said second output is coupled to said third linear array when said first resolution is employed and so that said second output is coupled to said fourth linear array when said second resolution is employed, and wherein said controller provides said control signal to said third coupler so that said third output is coupled to said fifth linear array when said first resolution is employed and so that said third output is coupled to said sixth linear array when said second resolution is employed.

10. (Original) The apparatus of claim 9, wherein said first linear array and said second linear array detect a first color of light, wherein said third linear array and said fourth linear array detect a second color of light, and wherein said fifth linear array and said sixth linear array detect a third color of light.

11. (Currently Amended) The apparatus of claim 9, wherein said first linear array, said second linear array, said third linear array, said fourth linear array, said fifth linear array and said sixth linear array are ~~placed~~ located on a single substrate.

12. (Original) The apparatus as in claim 11, wherein said first length, said second length, said third length, said fourth length, said fifth length and said sixth length are substantially the same and at least equal to one dimension of an image to be sensed.

13. (Original) The apparatus as in claim 1, further comprising a plurality of third photosensor elements coupled together to form a third linear array and having a third length and a third resolution, said third linear array coupled to said coupler and wherein said controller providing a control signal to said coupler such that said output is coupled to said third linear array when said third resolution is employed.

14. (Currently Amended) The apparatus of claim 12, wherein said first linear array, said second linear array, said third linear array and said coupler are ~~placed~~ located on a single substrate.

15. (Original) The apparatus of claim 12, wherein said first length, said second length and said third length are substantially the same and at least equal to one dimension of an image to be sensed.

16. (Original) The apparatus of claim 15, wherein said coupler further comprises a third amplifier coupled to said third linear array such that charges detected by said plurality of third photosensor elements are amplified into a third electrical signal

17. (Original) The apparatus of claim 16, wherein said first linear array, said second linear array and said third linear array detect a first color of light.

18. (Previously Presented) The apparatus of claim 13, wherein said first resolution corresponds to said first linear array having substantially 300 of said first photosensitive elements, wherein said second resolution corresponds to said second linear array having substantially 600 of said second photosensitive elements, and wherein said third resolution corresponds to said third linear array having substantially 2400 of said third photosensitive elements.

19. (Previously Presented) The apparatus of claim 18, wherein said third linear array is comprised of two rows, each row having substantially 1200 of said third photosensitive elements.

20. – 36. (Canceled)

37. (New) A multiple resolution sensing apparatus comprising;

a plurality of first photosensor elements coupled together to form a first linear array and having a first length and a first resolution;

a plurality of second photosensor elements coupled together to form a second linear array and having a second length and a second resolution;

a coupler having an output, said coupler coupled to said first linear array and to said second linear array; and

a controller coupled to said coupler and providing a control signal to said coupler such that said output is coupled to said first linear array when said first resolution is employed and such that said output is coupled to said second linear array, instead of said first linear array, when said second resolution is employed;

wherein said coupler further includes a first amplifier, and wherein said first linear array, said second linear array and said coupler with said first amplifier are located on a single substrate.

38. (New) The apparatus of claim 37, wherein said first amplifier is operative to amplify signals provided by the first linear array when the first resolution is being employed and to amplify signals provided by the second linear array when the second resolution is being employed.

39. (New) The apparatus of claim 37, further comprising:

a plurality of third photosensor elements coupled together to form a third linear array and having a third length and said first resolution;

a plurality of fourth photosensor elements coupled together to form a fourth linear array and having a fourth length and said second resolution;

a second coupler having an second output, said second coupler coupled to said third linear array and to said fourth linear array;

a plurality of fifth photosensor elements coupled together to form a fifth linear array and having a fifth length and said first resolution;

a plurality of sixth photosensor elements coupled together to form a sixth linear array and having a sixth length and said second resolution;

a third coupler having a third output, said coupler coupled to said first linear array and to said second linear array,

wherein said controller is coupled to said second coupler and said third coupler, and wherein said controller provides said control signal to said second coupler so that said second output is coupled to said third linear array when said first resolution is employed and so that said second output is coupled to said fourth linear array when said second resolution is employed, and wherein said controller provides said control signal to said third coupler so that said third output is coupled to said fifth linear array when said first resolution is employed and so that said third output is coupled to said sixth linear array when said second resolution is employed.

40. (New) The apparatus of claim 1, wherein said first linear array and said second linear array detect a first color of light.